REMARKS

In a Final Office Action dated November 26, 2007, the Examiner has newly rejected Claims 1-21 under 35 USC § 103(a) as unpatentable over U.S. Patent No. 7,185,071 issued to Berg et al. ("Berg") in view of U.S. Patent No. 7,181,731 issued to Pace et al. ("Pace"). The Examiner has also rejected Claims 5, 12 and 19 under 35 USC § 103(a) as unpatentable over Berg in view of Pace, further in view of USPN 7,093,247 issued to Ashworth et al. ("Ashworth").

In this response, Applicant respectfully traverses the rejection of the claims. Applicant requests continued examination of Claims 1-21 in view of the amendments to the claims and arguments as set forth in detail in the following remarks.

CLAIM REJECTIONS – 35 U.S.C. § 103

Although the Examiner has withdrawn the previous rejection of Claims 1, 7, 8, 14, 15 and 21 under 35 USC §102(b) as anticipated by Berg, the Examiner now argues that all of the pending Claims are rejected under 35 USC §103 as unpatentable over Berg in view of Pace. Applicant traverses the rejection.

Nevertheless, in order to advance the prosecution of the application, and without admitting the propriety of the rejection, Applicant has amended independent Claims 1, 8 and 15, as well as dependent Claims 4, 9, 11 and 18, to more particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. Support for the amendments is found throughout the specification and drawings.

Claim 1, as currently amended, reads as follows:

> 1. A method for starting a group of enterprise servers belonging to cluster of enterprise servers, the method comprising:

receiving, in an enterprise server in a group of enterprise servers, the group belonging to a cluster of enterprise servers, the cluster having a central database accessible to the group of enterprise servers, a notification that binaries and/or configuration settings related to the cluster and stored within the central database have been modified;

comparing binaries and/or configuration settings stored within a local file system of each enterprise server with the modified binaries and/or configuration settings related to the cluster and stored within the central database accessible to the group of enterprise servers to identify any binaries and/or configuration settings stored within the local file system which are out-of-date as compared to the binaries and/or configuration settings related to the cluster and stored within the central database;

if the binaries and/or configuration settings stored within the local file system are out-of-date as compared to the modified binaries and/or configuration settings related to the cluster and stored within the central database, then updating the modified binaries and/or configuration settings from the central database to the local file system prior to starting each enterprise server in the group of enterprise servers; and

starting each enterprise server in the group of enterprise servers using the updated binaries and/or configuration settings stored within the local file system.

As noted in Applicant's previous response, the Berg reference discloses what appears to be a method for rolling back to a previous version of an application configuration on a given application server machine, such as when a faulty version of a module is discovered and it is necessary to quickly roll back to a previous version to minimize downtime. The rolling back is achieved through the use of snapshots of an application configuration version that comprises pointers to the various elements that make up the versions so that a current version can be rolled back to a previous version. Rolling back to a previous version involves restarting the application using the information provided in the snapshot (Berg, Abstract).

The Pace reference discloses what appears to be a method for distributing components of an application, referred to as an asset, to one or more target nodes, such as

different application servers or proxy servers, or other computers running on a communication network (Pace, Abstract, Col. 59, Fig. 7).

Both the Berg and Pace references appear to be concerned with updating *applications* running on a server. Neither has to do with starting a group of *servers* as recited in Claim 1, as well as independent Claims 8 and 15. Among other deficiencies, neither Berg or Pace, either alone or in combination, discloses

- a group of servers belonging to a cluster of servers,
- a central database for storing binaries and/or configuration settings related to the cluster,
- receiving a notification that binaries and/or configuration settings related to the cluster and stored in the central database have been modified,
- comparing the servers' local binaries and/or configuration settings with the modified binaries and/or configuration settings in the central database,
- updating the servers' local binaries and/or configuration settings with the modified binaries and/or configuration settings from the central database, and
- starting the servers using the updated local binaries and/or configuration settings.

In making the rejection of Claims 1, 7, 8, 14, 15, 16, and 21, the Examiner appears to have concluded that the snapshots/deployment descriptors disclose the binaries and configuration settings recited in the claims. Applicant disagrees with the Examiner's conclusion, and has clarified that the binaries and configuration settings are those related to the cluster of servers to which a server in the group of servers belongs, further distinguishing them from the snapshots and deployment descriptors in Berg that, among other differences, are associated with particular applications and not servers.

The Examiner asserts that starting and restarting the applications in Berg, as shown in steps 218 and 216 of the flowchart in Figure 2, discloses starting each enterprise server using the updated binaries and/or configuration settings as recited in the claims. In response, Applicant notes that the description of Figure 2 in Berg is clearly limited to the actions performed by a *single server* when installing a new version of *a module in an application*. (Berg, Col 4, Lines 41-44). It does not disclose starting *each server in a group of servers* with *updated binaries and/or configuration settings* as recited in the claims. A new version of an application module is not the same as updated binaries and configuration settings for a server, particularly those binaries and configuration settings related to a cluster of servers to which the group of servers belong.

The Examiner concedes that Berg does not disclose a group of enterprise servers and whether the binaries and configuration settings in local file systems of each of the enterprise servers are compared to those stored in a central database to determine whether they are out-of-date (Office Action, Page 4), but argues that Pace discloses these limitations. Applicants disagree.

As noted above, both the Berg and Pace references appear to be concerned with updating *applications* running on a server. Neither has to do with starting a group of *servers* as recited in Claim 1, as well as independent Claims 8 and 15. In making the rejection, the Examiner vaguely asserts that the database management system (DBMS) employed in Pace discloses the central database recited in the claims. But Applicant could find nothing in the references to the use of a DBMS in Pace that discloses a central database as recited in the claims, much less one in which is stored binaries and configuration settings related to a cluster of servers.

In view of the foregoing, Applicant submits that Claims 1, 7, 8, 14, 15, 16, and 21 are patentably distinguishable over Berg and Pace, either alone or in combination, and requests that the Examiner withdraw the rejection.

With reference to the rejection of Claims 2 and 9, the Examiner asserts that the loose configuration and Enterprise Archive file (EAR file) disclosed in Berg discloses the server layout information uniquely identifying each server in the group of servers and/or the parameters associated with each server in the group (Office Action, Page 6). Applicant disagrees. The "loose configuration" and EAR files disclosed in Berg represent a packaged application in the Java platform. The loose configuration files disclosed in Berg are merely examples of application package files that are stored in a separate location from the EAR file itself. Neither type of file discloses server layout information for a server in a group of servers as recited in the claims.

With reference to Claims 2 and 9, The Examiner concedes that Berg does not disclose generating a list of servers within the group to be started based on server layout information retrieved from the central database (Office Action, Page 6), but argues that the target asset data structure and target deployment queue disclosed in Figures 7 and 8 of Pace does. Applicant disagrees. The target asset data structure in Figure 7 merely identifies components of an application and the target node to which it should be deployed; the target asset deployment queue in Figure 8 identifies the target nodes to which one or more assets are to be deployed (Pace, Col. 59-60). Identifying target nodes to which one or more assets are to be deployed is not the same as generating a list of servers within a group of servers to be started.

In view of the foregoing, Applicant submits that Claims 2 and 9 are patentably distinguishable over Berg and Pace, either alone or in combination, and requests that the Examiner withdraw the rejection.

With reference to Claims 4, 11 and 18, The Examiner concedes that Berg does not disclose a hierarchical data object comprising a global sub-hierarchy and a non-global sub-hierarchy, the global sub-hierarchy containing configuration data and binaries associated with all of the server nodes, and the non-global sub-hierarchy containing the layout information, configuration data and binaries associated with particular server nodes. (Office Action, Page 10). The Examiner argues, however, that the package specification process and process adapter process disclosed in Pace (Col 9), as well as the reference to a global distribution network that pushes application content through a network to servers located closer to the end-user disclosed in Pace (Col. 6) makes up for the deficiencies of Berg. Applicant disagrees. Neither the package specification/process adapter processes, nor the global content distribution system discloses the global and non-global sub-hierarchies recited in Claims 4, 11 and 18. The package specification/process adapter processes merely refer to the package/asset/asset type/asset layer information that is clearly associated with the application, and not the server. The global *content distribution* system of pushing *applicant content* to servers is clearly not related to the layout information, configuration data and binaries recited in the claims. Nevertheless, and without admitting the propriety of the rejection, Applicant has amended Claims 4, 11 and 18 to clarify that the layout information, configuration data and binaries contained in the global and non-global hierarchies are associated with server nodes in a cluster of server nodes as recited in the claims.

In view of the foregoing, Applicant submits that Claims 4, 11 and 18 are patentably distinguishable over Berg and Pace, either alone or in combination, and requests that the Examiner withdraw the rejection.

With reference to Claims 6, 13 and 20, the Examiner concedes that Berg does not disclose an instance of enterprise servers comprising at least one dispatcher and two or more server nodes (Office Action, Page 12), but argues that Figures 9 and 10 in Pace does. Applicant disagrees. Figures 9 and 10 of Pace merely disclose a component distribution server for distributing application components to one or more Enterprise Information Servers. Nothing in Figures 9 and 10 appear to disclose an instance of enterprise servers that have at least one dispatcher and two or more server nodes as recited in the claims.

In view of the foregoing, Applicant submits that Claims 6, 13 and 20 are patentably distinguishable over Berg and Pace, either alone or in combination, and requests that the Examiner withdraw the rejection.

With reference to the rejection of the remaining dependent Claims 5, 12 and 19 as unpatentable over Berg in view of Pace and further in view of Ashworth, Applicants submit that they are allowable because they depend from allowable independent Claims 1, 8, and 15, and because of their additional limitations, and requests that the Examiner withdraw the rejection.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, Claims 1-21 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application. Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
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